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#### Commission raises questions over Northern Ireland's death certificates

The system for investigating deaths in Northern Ireland's hospitals has been criticised by the province's Human Rights Commission for not requiring automatic investigation.

A report by Tony McGleenan, professor of law at the University of Ulster and a practising barrister, concludes that: "The system of death certification can conceal the presence of individual or systemic errors which have contributed to the death."

A total of 14 462 people died in Northern Ireland in 2003, of whom 7464 died in hospitals, 3042 in nursing homes, and 58 in psychiatric hospitals.

The Human Rights Commission, which is charged with ensuring that human rights are fully protected in law, asked Professor McGleenan to examine hospital deaths in the context of article 2 of the European Convention on Human Rights after receiving complaints from the public concerning alleged medical negligence.

Professor McGleenan criticises the practice whereby a coroner retains wide discretion as to whether a postmortem examination should be carried out when a hospital death is reported to him and the fact that coroners combine investigative and judicial roles during an inquest.

Muiris Houston *Galway* 

Investigating Deaths in Hospital in Northern Ireland is available at www.nihrc.org

#### Food fortification cuts cases of spina bifida in Canada

The fortification of a nation's food with folic acid has led to a 78% reduction in the incidence of spina bifida and other neural tube defects among babies. This benefit occurs without masking vitamin B-12 deficiency in elderly people, a theoretical risk of adding folic acid to food.



Celebrating the bond between mother and child

This painting entitled *Mother and Child on the Ward* is part of an exhibition by the artist Ghislaine Howard, which opened in London last week, in conjunction with the charity Paintings in Hospitals.

A native of Derbyshire, Ms Howard was one of the first artists to take up a post as an artist in residence at a hospital, which she did from October 1992 to January 1993 at St Mary's Maternity Unit, Manchester.

The exhibition, A Shared Experience, runs at the Sheridan Russell Gallery, London, from 28 September to 16 October.

Annabel Ferriman *BMJ* 

More information is available at www.paintingsinhospitals.org.uk

These were the findings of Canadian researchers who studied the population in Newfoundland, an area with historically high rates of neural tube defects (*BMC Pregnancy and Childbirth* 2004;4:20).

White flour, pasta, and cornmeal have been fortified with folic acid in Canada at a level of 0.15 mg per 100 g of flour since 1998. But larger amounts of folic acid can remove the haematological signs of vitamin B-12 deficiency and delay diagnosis and treatment.

To investigate this concern Dr Catherine McCourt of the Population and Public Health Branch of Health Canada, Ottawa, Ontario, and colleagues looked at the impact of fortification on women aged 19-44 years and people aged over 65 from November 1997 to March 1998 and from November 2000 to March 2001.

The proportion of neural tube defects during this time fell from an average of 4.36 in every 1000 births before fortification to 0.96 in 1000 births after fortification. And despite significant

increases of folate in elderly people the researchers found no evidence of masking haematological manifestations of vitamin B-12 deficiency.

Robert Short London

## Cardiomyocytes from human stem cells restore heart rhythm

Cardiomyocytes developed from human embryonic stem cells can act as biological pacemakers and restore myocardial mechanical function when transplanted into animal hearts with a slow heart rate, according to research published last week.

Researchers from the Technion-Israel Institute of Technology in Haifa, Israel, generated cardiomyocyte cell grafts from human embryonic cells in vitro. They showed that the cells formed structural and electromechanical connections with cultured rat cardiomyocytes. However, to be clinically useful it

is important to prove that the cells can survive and function in the body, explained Professor Lior Gepstein, senior lecturer in physiology at the institute and a member of the research group.

To test the cells the group created a pig model with complete atrioventricular block in which the cardiac pacemaker was dysfunctional. They then transplanted the cultured cardiomyocytes into the pacemaker region and found that these successfully paced the pig ventricle. Long term electromechanical integration between host and donor tissues was also found at several levels. The findings are published in the 26 September online version of Nature Biotechnology (www.nature.com/nbt/) and will appear in the print edition next week.

Judy Siegel-Itzkovich Jerusalem

### Stroke and heart attack admissions are linked to cold weather

Cold weather can increase the number of women aged under 50 being admitted to hospital for stroke or heart attack, shows research on hospital admissions in 17 countries.

Overall, a 5°C drop in temperature was associated with a 7% increase in admissions for stroke (incidence rate ratio 0.93 (95% confidence interval 0.89 to 0.97)) and a 12% increase in admissions for heart attack (incidence rate ratio 0.88 (0.8 to 0.97)), say the authors of the study (Journal of Clinical Epidemiology 2004:57:749-57).

"To our knowledge, this is the first report based on an international multi-centre study to investigate and show a clear association between climate and hospital admission rates of these events among young women from a range of different climatic zones," write the authors, Choon Lan Chang, Martin Shipley, Michael Marmot, and Neil Poulter, from Imperial College and University College London.

The study looked at the relation between variation in three climatic variables—temperature, rainfall, and humidity—and